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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,775	08/22/2003	Masafumi Sakaguchi	116906	8777
25944	7590	06/10/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			SEVER, ANDREW T	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 06/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/645,775

Applicant(s)

SAKAGUCHI ET AL.

Examiner

Andrew T Sever

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. Figure 8 and 9 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by McKechnie et al. (US 4,730,897.)

McKechnie et al. teaches in figure 7 a transmissive screen, comprising a Fresnel lens portion having Fresnel lens components on the light-exiting face, thereof;

A microlens array portion disposed at the light-exiting face side of the Fresnel lens portion and having many micro lenses on a light-incident face; and

A light-diffusing portion disposed between the Fresnel lens portion and the microlens array portion (surface diffusion on front element).

With regards to applicant's claim 2:

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Since the diffusing surface is at the surface, inherently the light-diffusing portion is substantially at a surface thereof.

With regards to applicant's claim 6:

See column 4 lines 9-27 which teaches that the surface diffuser is made by roughing a resin (polymer) with a powder.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKechnie et al. as applied to claims 1, 2, and 6 above, and further in view of Goto et al. (US 2003/0137729.)

As described in more detail above McKechnie teaches a transmissive screen comprising a Fresnel lens, a microlens array, and a light-diffusing portion disposed between the Fresnel lens and the microlens array. McKechnie does not specifically teach that the light-diffusing portion has a haze value ranging from 5% to 99% or that it has a gloss value ranging from 5% to 65%. Goto teaches in a screen that does not have the diffusive sheet that it is desirous to have the Fresnel sheet have a haze value of 15 to 40 % and a gloss of 20 to 45% in order to maintain contrast and reduce ghosting (see paragraphs 20-

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24.) Although Goto does not teach the light diffusing portion, it would be equally obvious to maintain these values on the light-diffusing portion as otherwise the light-diffusing portion would introduce the ghosting and/or cause diffraction. Therefore it would have been obvious to one of ordinary skill in the art to make the light-diffusing portion of McKechnie have a haze value of 15 to 40% and gloss value of 20 to 45%.

With regards to applicant's claim 5:

Although McKechnie does not teach it, one with ordinary skill in the art would recognize that the powder that McKechnie uses to make the diffraction pattern would make substantially conical irregularities.

6. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKechnie et al. as applied to claims 1, 2, and 6 above, and further in view of Goto (US 6,046,855.)

As described in more detail above McKechnie teaches a transmissive screen comprising a Fresnel lens, a microlens array, and a light-diffusing portion disposed between the Fresnel lens and the microlens array. McKechnie does not necessary teach the diameter of the microlens or how they are arranged. Goto teaches in column 11 lines 55-67 micro lenses having a diameter of 24 to 50 micrometer. Goto further teaches in table 1 (columns 2 and 3 and in column 3 lines 10-15 that an angle of 45 degrees or more is preferable (as is claimed by applicant's claim 8) Goto teaches in column 3 lines 45-54 that the angle as well as the diameter of the lenses improves contrast as well as reduces reflection of extraneous light. Accordingly it would be obvious to one of ordinary art at

the time the invention was made to incorporate the micro lenses of Goto in the transmissive screen of McKechnie.

With regards to applicant's claim 9:

Goto teaches in column 1 lines 5-23 the basic parts of a rear projector which includes a optical projection unit and the transmissive screen such as the one taught by McKechnie (and Goto).

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claim1 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim4 of copending Application No. 10/647,302. Although the conflicting claims are not identical, they are not patentably distinct from each other because they claim all the same components: a Fresnel lens, a microlens array disposed at the light-exiting face side of the Fresnel lens portion and a light diffusing portion disposed between the Fresnel lens portion and the microlens array portion.

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2004/0075900 to Sakaguchi et al. is copending application 10/647302 cited in above double patenting rejection.

US 2004/0070845 to Karasawa et al. is also a copending application

US 6,392,726 to Goto teaches in figure 1 a prior art screen that include Fresnel (13), diffuser (14), and micro lenses (15).

US 5,760,955 to Goldenberg et al. teaches in figure 4 a screen with a Fresnel lens, a lenticular surface (micro lenses), a bulk diffuser (48), and a phase grating 50 between the lenticular surface and Fresnel lens.

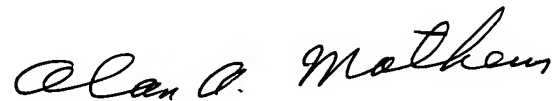
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Sever whose telephone number is 571-272-2128. The examiner can normally be reached on 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 271-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS

A handwritten signature in black ink that reads "Alan A. Mathews". The signature is written in a cursive, flowing style.

Alan A. Mathews
Primary Examiner